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10/714,525	11/14/2003	Carl de Marcken	09765-036001	2223
26161	7590	11/06/2009	EXAMINER	
FISH & RICHARDSON PC			VETTER, DANIEL	
P.O. BOX 1022				
MINNEAPOLIS, MN 55440-1022			ART UNIT	PAPER NUMBER
			3628	
			NOTIFICATION DATE	DELIVERY MODE
			11/06/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/714,525	MARCKEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	DANIEL VETTER	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 July 2009.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) 1-20 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 21-76 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1-76 were previously pending. Claims 21, 37, 40, 41, 51, 57, 63, and 68 were amended in the reply filed July 1, 2009. Claims 1-76 are currently pending, of which 1-20 are withdrawn from consideration.

### ***Response to Arguments***

2. Applicant's amendments to claims 57 and 68 do not overcome the rejection under § 101. Applicant has amended the claim to include a computer performing certain initial steps, however these steps consist of insignificant pre-solution activities and do not serve to tie the process to a particular machine. See rejection under § 101 below.
3. Applicant's amendment overcomes the rejection of claim 37 under § 112, second paragraph and it is withdrawn. However, the scope of amended claim 40 remains vague. See rejection under § 112, second paragraph below.
4. Applicant's arguments with respect to the rejections under §§ 102(b) and 103(a) have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
6. Claims 57-62 and 68-76 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
7. Claims 57-62 and 68-76 are directed to a series of steps. In order for a series of steps to be considered a proper process under § 101, a claimed process should either: (1) be tied to a particular machine/apparatus or (2) transform an underlying article or materials. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). Thus, to qualify as

patent eligible, these processes must positively recite the other statutory class to which it is tied (e.g., by identifying the apparatus that accomplishes the method steps), or positively recite the subject matter that is being transformed (e.g., by identifying the product or material that is changed to a different state). The claims do recite a computer to perform some of the initial steps, however these steps only constitute insignificant pre-solution gathering activities. They do not serve to tie the entire process to a particular machine or place meaningful limits on what apparatus must be used to generate the solutions. And while the claimed invention is related to actual travel itineraries, no step is actually implemented to affect a physical transformation in the real world, only abstract determinations. As such, the claims concretely identify neither the particular apparatus performing the recited steps of the invention nor any transformation of underlying materials, and accordingly are directed to non-statutory subject matter.

See also *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008) (en banc) (clarifying the "machine-or-transformation" test).

#### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
9. Claims 21-50 and 63-76 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
10. Claim 21 recites "determine constraints on sequences of flights between the endpoints of the trip segments" and subsequently recites "generate itineraries of sequences of flights using the constraints to select which flights to include in the sequences of flights of the generated itineraries." This language is unclear. It seems as though the constraints are determined from sequences of flights, which themselves are subsequently determined from their constraints. The circular nature of these limitations makes the relationship between the recited elements unclear and does not properly apprise the public as to what would constitute infringement. Claims 41, 63, and 68

contain similar recitations. Dependent claims inherit the above deficiencies through of their respective base claims and, as such, are rejected for the same reasons.

11. Claim 40 recites the limitation "price the additional itineraries generated without considering the constraints and with considering the constraints" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. It is also unclear how the same itineraries could be generated by both considering and not considering the constraints. For examination purposes Examiner will consider this to refer to different itineraries; however the language should be clarified to reflect Applicant's intent.

#### ***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 21-29, 32-47, and 50-76 are rejected under 35 U.S.C. 102(b) as being anticipated by DeMarcken, U.S. Pat. No. 6,275,808 (Reference A of the attached PTO-892).

14. As per claim 21, DeMarcken teaches a computer product to cause a computer to: receive trip segments (col. 4, lines 28-33); determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from fares between the end points of the trip segments (col. 9, lines 20-30, 61-67); generate itineraries of sequences of flights using the constraints to select which flights to include in the sequences of flights of the generated itineraries (col. 10, lines 1-10, 25-40; col. 61, lines 56-62); and price the itineraries (col. 3, line 45; col. 11, lines 1-4).

15. As per claims 22, 42, 52, 58, DeMarcken further teaches the constraints are on flights (col. 4, line 36).

16. As per claims 23, 43, 53, 59, DeMarcken further teaches the constraints are on itineraries (col. 4, line 35).

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17. As per claims 24, 44, 54, DeMarcken further teaches the fares are fares between endpoints of trip segments (col. 4, line 7).
18. As per claims 25, 45, 55, DeMarcken further teaches fares are fares between points connected by single flights to endpoints of trip segments (Table 2).
19. As per claim 26, DeMarcken further teaches itineraries for a complete trip (Table 2).
20. As per claim 27, DeMarcken further teaches providing itineraries for each trip segment (col. 4, lines 35-37).
21. As per claims 28, 46, 60, DeMarcken further teaches the constraints are fare routings (col. 9, lines 64-66).
22. As per claims 29, 47, DeMarcken further teaches constraints are based on fare carrier (col. 23, lines 32-36)
23. As per claims 32, 61, DeMarcken further teaches the constraints are restrictions on individual flights (col. 9, lines 61-66).
24. As per claims 33, 50, 56, 62 DeMarcken further teaches the constraints are on airline and origin and destination triples (Table 2).
25. As per claim 34, DeMarcken further teaches the constraints are restrictions on origin and destination, (col. 17, lines 57-67; Table 13).
26. As per claim 35, DeMarcken further teaches the constraints based on price (col. 10, lines 8-10).
27. As per claim 36, DeMarcken further teaches generating additional itineraries without considering the constraints (Table 27—fare component set2 without rules).
28. As per claim 37, DeMarcken further teaches pricing additional itineraries without considering constraints (Table 27—fare component set2 without rules), and returning the additional priced itineraries (col. 60, lines 55-64).
29. As per claim 38, DeMarcken further teaches restricting pricing of itineraries based on constraints used to produce the itineraries (col. 10, line 63 – col. 11, line 6).
30. As per claim 39, DeMarcken further teaches restricting pricing of itineraries is based restrictions on the endpoints of fares considered during pricing (col. 10, lines 28-34).

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31. As per claim 40, DeMarcken further teaches generating additional itineraries without considering the constraints (Table 27—fare component set2 without rules) pricing the additional itineraries from flights without considering the constraints (Table 27—fare component set2 without rules) and with considering the constraints and returning the priced additional itineraries (col. 60, lines 55-64).

32. As per claim 41, DeMarcken teaches a processor (col. 3, lines 34-39); a memory for executing a computer program product (col. 3, lines 34-39); receive trip segments (col. 4, lines 28-33); determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from fares between the end points of the trip segments which can be used with the flights (col. 9, lines 20-30, 61-67); generate itineraries of sequences of flights using the constraints to select which flights to include in the sequences of flights of the generated itineraries (col. 10, lines 1-10, 25-40; col. 61, lines 56-62); and price the itineraries (col. 3, line 45; col. 11, lines 1-4).

33. As per claim 51, DeMarcken teaches a computer program product for causing a computer to: receive trip segments (col. 4, lines 28-33); determine geographic and airline constraints derived from available fares to control the manner in which flights are combined prior to evaluation of fare rules (col. 10, lines 25-34; Table 3); generate itineraries from flights using the constraints (col. 10, lines 25-40, line 66 – col. 11, line 6).

34. As per claim 57, DeMarcken teaches receiving, by a computer, trip segments (col. 4, lines 28-33); determining, by a computer, geographic and airline constraints derived from available fares to control the manner in which flights are combined prior to evaluation of fare rules (col. 10, lines 25-34; Table 3); generating itineraries from flights using the constraints (col. 10, lines 25-40, line 66 – col. 11, line 6).

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35. As per claim 63, DeMarcken teaches a computer program product for causing a computer to: receive trip segments (col. 4, lines 28-33); determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from fares between the end points of the trip segments, which can be used with the flights (col. 9, lines 20-30, 61-67); generate itineraries of sequences of flights constrained by multiple constraints that are derived from a diverse set of fares in order to increase the diversity of generated itineraries using the multiple constraints to select which flights to include in the sequences of flights of the generated itineraries (col. 10, lines 1-10, 25-40; col. 61, lines 56-62); and return at least some of the generated itineraries to the user (col. 60, lines 55-64).

36. As per claims 64, 69, DeMarcken further teaches multiple airlines (Table 3).

37. As per claims 65, 70, DeMarcken further teaches multiple origins (Table 3).

38. As per claims 66, 71, DeMarcken further teaches multiple destinations (Table 3).

39. As per claims 67, 72, DeMarcken further teaches multiple origin-destination pairs (Table 2).

40. As per claim 68, DeMarcken teaches receiving, by a computer, trip segments (col. 4, lines 28-33); determining, by a computer, constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from fares between the end points of the trip segments, which can be used with the flights to connect the end points of the trip segments (col. 9, lines 20-30, 61-67); generating itineraries of sequences of flights constrained by multiple constraints that are derived from a diverse set of fares in order to increase the diversity of generated itineraries using the multiple constraints to select which flights to include in the sequences of flights of the generated itineraries (col. 10, lines 1-10, 25-40; col. 61, lines 56-62); and returning at least some of the generated itineraries to the user (col. 60, lines 55-64).

41. As per claim 73, DeMarcken further teaches fares are filtered based on properties of the fare rules (col. 15, lines 41-44).

42. As per claim 74, DeMarcken further teaches fares fail if aspects of the fare's rules are violated (col. 15, lines 41-44).

43. As per claim 75, DeMarcken further teaches aspects of the fare's rules are effective and discontinue dates (col. 16, lines 11-22).
44. As per claim 76, DeMarcken further teaches aspects of the fare's rules limit at least one of travel dates and travel times (col. 17, lines 10-13).

***Claim Rejections - 35 USC § 103***

45. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

46. Claims 30 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMarcken in view of Ratliff, et al., U.S. Pat. Pub. No. 2003/0191725 (Reference B of the attached PTO-892).

47. As per claims 30 and 48, DeMarcken does not explicitly teach the constraints based on global fare indicator; which is taught by Ratliff (Table 1). It would have been prima facie obvious to one having ordinary skill in the art at the time of invention to incorporate these constraints because, as shown by Ratliff, they are old and well known in the reservations art. In the combination, no element would have served a purpose other than it already did independently, and one skilled in the art would have recognized that the combination could be implemented through routine engineering producing predictable results.

48. Claims 31 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMarcken in view of the Travel Gazette (Reference U of the PTO-892 part of paper no. 200703).

49. As per claims 31 and 49, DeMarcken does not explicitly teach the constraints based on fare maximum permitted mileage; which is taught by Travel Gazette (pg. 1). It would have been prima facie obvious to one having ordinary skill in the art at the time of

invention to incorporate these constraints because, as shown by Travel Gazette, they are old and well known in the reservations art. In the combination, no element would have served a purpose other than it already did independently, and one skilled in the art would have recognized that the combination could be implemented through routine engineering producing predictable results.

***Conclusion***

50. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. DeMarcken, Intl. Pat. Pub. No. WO 01/33394 (Reference N of the attached PTO-892) teaches a method for generating a diverse set of travel options.
51. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

52. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL VETTER whose telephone number is (571)270-1366. The examiner can normally be reached on Monday - Thursday 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on (571)272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DPV/

/JOHN W HAYES/

Supervisory Patent Examiner, Art Unit 3628